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(54) **Tubing actuated valve assembly and method of placing a tubing into a borehole**

(57) A tubing-manipulated valve assembly (200) for control of fluid flow in a flowbore. The valve assembly (200) comprises a pivotable flapper plate (202) that is specially-shaped to include a semicylindrical channel which substantially aligns with a flowbore when the plate (202) is in an open position to cause the plate to conform closely to the interior profile of a wellbore. The plate (202) is operable between an open position in which the plate (202) is generally aligned with the flowbore and a closed position in which the plate (202) substantially seals the flowbore.

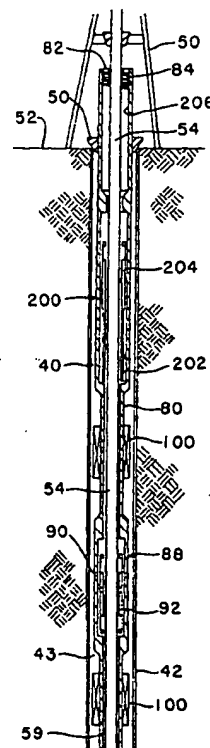


FIG. 1A

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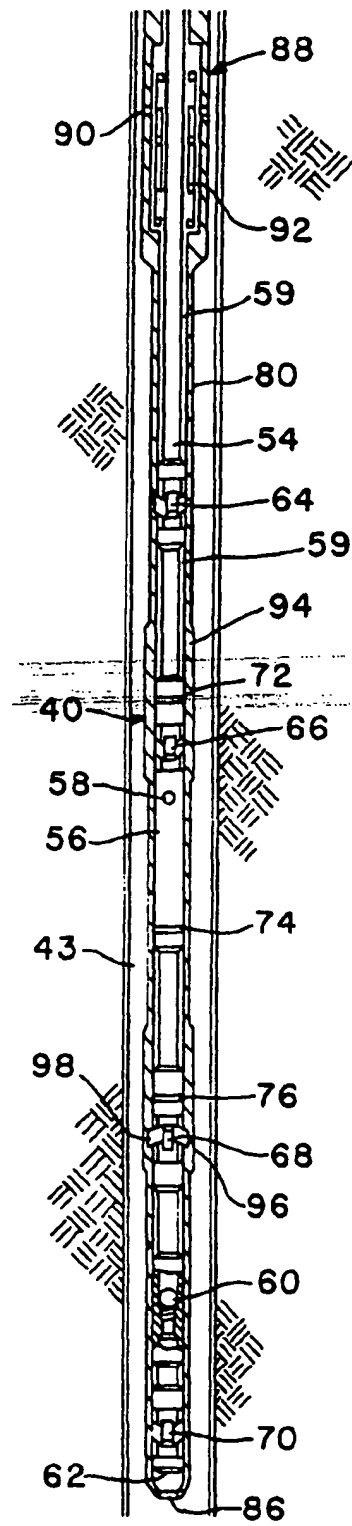


FIG.1B



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EUROPEAN SEARCH REPORT

Application Number
EP 96 30 0607

DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int.Cl.8)
A	US 4 457 376 A (CARMODY MICHAEL A ET AL) 3 July 1984 * the whole document * ---	1, 4, 9, 10	E21B34/12 E21B23/00 E21B34/06
A	US 5 137 089 A (HINES CRAIG D ET AL) 11 August 1992 * figures 17-20 * ---	1	
A	US 4 531 587 A (FINEBERG DOUGLAS H) 30 July 1985 * abstract * * column 2, line 10 - line 59 * * claims 1,8-10 * -----	1	
			TECHNICAL FIELDS SEARCHED (Int.Cl.8)
			E21B
The present search report has been drawn up for all claims			
Place of search BERLIN		Date of completion of the search 21 January 1999	Examiner Schaeffler, C
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21-01-1999

Patent document cited in search report		Publication date	Patent family member(s)		Publication date
US 4457376	A	03-07-1984	NONE		
US 5137089	A	11-08-1992	GB	2248464 A, B	08-04-1992
			NL	9101604 A	06-05-1992
			US	5323859 A	28-06-1994
US 4531587	A	30-07-1985	CA	1231302 A	12-01-1988
			GB	2154632 A, B	11-09-1985
			GB	2198170 A, B	08-06-1988

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